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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/612,829	07/07/2000	Howard Gregg King	4396D1	8746

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EXAMINER	
BARTON, JEFFREY THOMAS	
ART UNIT	**PAPER NUMBER**
1753	

DATE MAILED: 07/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/612,829	KING ET AL.	
	Examiner	Art Unit	
	Jeffrey T. Barton	1753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 02 May 2005.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 14-26 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 14-26 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2 May 2005 has been entered.

Status of Rejections Pending Since the Office Action of 2 December 2004

2. The rejection of claims 14-17 under 35 U.S.C. §102(e) as anticipated by Adourian et al is maintained.

3. The rejection of claims 14-17 under 35 U.S.C. §103(a) as unpatentable over Kambara et al in view of Lauer et al is maintained.

4. The rejection of claims 14-17 under 35 U.S.C. §103(a) as unpatentable over Briggs et al in view of Lauer et al is maintained.

Claim Rejections - 35 USC § 102

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 14-17, 20, 21, and 24 are rejected under 35 U.S.C. 102(e) as being anticipated by Adourian et al. As the application dates of the instant application and Adourian et al are the same (14 September 1998), citations below are given to provisional application 60/058,798, to which Adourian et al claimed benefit of priority, and which was filed on 15 September 1997.

Regarding claim 14, Adourian et al disclose a method for sample handling in a capillary electrophoresis apparatus, comprising: providing a plurality of samples on coordinates of a work surface (Page 18, lines 1-15; Page 9, lines 10-15), wherein the work surface temperature is controlled (Page 18, lines 13-15); simultaneously transferring at least two samples from their respective work-surface coordinates to respective loading wells of a capillary electrophoresis chip (Page 19, lines 17-18; Page 6, line 20 - Page 7, line 20), wherein the wells include a capillary positioned therein (e.g. Figures 1A and 8A; Page 19, line 9 - Page 20, line 1; Page 9, lines 10-24); and injecting the samples from the wells into the capillaries. (Page 19, line 9 - Page 20, line 1; Page 9, lines 10-24) Applicant's definition of capillaries includes such microfluidic structures. (Specification Page 5, lines 4-8)

Regarding claim 15, Adourian et al disclose the work surfaces being multiwell plates, with the sample coordinates defined by the wells. (Page 9, lines 10-15; Page 18, lines 1-15)

Regarding claim 16, the loading wells of Adourian et al can be referred to as being in a sample loading assembly. (Figure 7, Page 8, line 26 - Page 9, line 15; the

arm, pipetter head, microtiter plate and microelectrophoresis device can be referred to as a "sample loading assembly")

Regarding claim 17, Adourian et al disclose electrokinetic injection. (Page 9, lines 18-24)

Regarding claim 20, Adourian et al disclose the sample well being a well of a conventional 96-well microtiter plate. (Page 9, lines 10-15; Page 18, lines 5-8)

Regarding claim 21, Applicant's definition of "capillary tube" includes microfluidic systems of this type. (Specification, Page 5, lines 4-8)

Regarding claim 24, this claim includes the same limitations as claim 14, which Adourian et al anticipate, as described above. In addition, Adourian et al disclose aspirating at least two samples into at least two respective pipettes and ejecting the at least two samples into at least two respective loading wells. (Page 7, lines 5-20; Page 9, lines 10-15) The definition of "aspirate" given by the Merriam-Webster Online Dictionary is "to draw by suction", which corresponds to the pipetting action performed by the pump-driven system of Adourian et al (Page 7, lines 15-19), and is the general mode of operation used in pipetting systems.

Claim Rejections - 35 USC § 103

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

8. Claims 14-17, 20, 21, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kambara et al (US 5,968,331) in view of Lauer et al.

Relevant to claim 14, Kambara et al disclose a method for sample handling in a capillary electrophoresis apparatus, comprising: providing a plurality of samples on coordinates of a work surface (Column 4, line 66 - Column 5, line 1; Column 5, lines 52-58); simultaneously transferring at least two samples from their respective work-surface coordinates to respective loading wells of a capillary electrophoresis chip (Figures 8 and 9, wells 23; Column 9, lines 24-29), wherein the wells include a capillary positioned therein (e.g. Figures 8 and 9, capillary 20 with gel 50 at the bottom of the well; Column 9, lines 1-9); and injecting the samples from the wells into the capillaries. (Column 9, lines 24-29)

Relevant to claim 15, Kambara et al disclose the work surfaces being multiwell plates, with the sample coordinates defined by the wells. (Column 5, lines 52-58)

Relevant to claim 16, the loading wells of Kambara et al can be referred to as being in a sample loading assembly. (e.g. Figure 8, illustrated plates, loading capillaries, and wells can be considered parts of a "loading assembly")

Relevant to claim 17, Kambara et al disclose electrokinetic injection. (Column 9, lines 26-29)

Relevant to claim 20, Kambara et al disclose sample wells being located in "titer plates." (Column 5, lines 52-58) One having ordinary skill in the art would understand this to mean an industry standard plate, such as those with 96, 384, or 1536 wells.

Relevant to claim 21, Applicant's definition of "capillary tube" includes microfluidic systems of this type. (Specification, Page 5, lines 4-8)

Relevant to claim 23, Kambara et al disclose decoupling the spatial arrangement of work surface coordinates to capillary inlets. (i.e. they change the spacing of the transfer capillaries) (Column 5, lines 47-63; Column 9, lines 1-7; 1 mm pitch between capillaries requires such a change in spacing)

Kambara et al do not explicitly disclose temperature control of the work surface.

Lauer et al disclose a capillary electrophoresis device in which all components are contained in a temperature-controlled enclosure, including the sample plate. (Figure 1, 93) Lauer et al teach the advantages of maintaining a constant temperature throughout the system in order to maximize reproducibility. (Figure 1; Column 5, lines 21-37)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Kambara et al by performing the method in an apparatus wherein the temperature of the system (including the work surface) is controlled, as taught by Lauer et al, because Lauer teaches that maintaining a constant temperature throughout the system improves reproducibility. (Column 5, lines 21-37)

9. Claims 14-17, 20, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Briggs et al in view of Lauer et al.

Relevant to claim 14, Briggs et al disclose a method for sample handling in a capillary electrophoresis apparatus, comprising: providing a plurality of samples on coordinates of a work surface (Figures 4A and 6, titer plate 86; Column 10, lines 24-25); simultaneously transferring at least two samples from their respective work-surface

coordinates to respective loading wells, (Figures 4A and 4B, Column 5, lines 8-14), wherein the wells include a capillary positioned therein (Figures 1, 2, and 4C); and injecting the samples from the wells into the capillaries. (Column 8, lines 9-24; Column 5, lines 5-19)

Relevant to claim 15, Briggs et al disclose the work surfaces being multiwell plates, with the sample coordinates defined by the wells. (Figure 4A; Column 11, lines 31-35)

Relevant to claim 16, the loading wells of Briggs et al can be referred to as being in a sample loading assembly. (e.g. Figures 4A and 4B, plates, capillaries, and wells 74 can be considered parts of a "loading assembly")

Relevant to claim 17, Briggs et al disclose electrokinetic injection. (Column 8, lines 9-24)

Relevant to claim 20, Briggs et al disclose the samples wells being in such plates. (Column 11, lines 31-35)

Relevant to claim 21, Briggs et al disclose the capillaries being capillary tubes. (Figures 1, 2, 4C, and 9)

Briggs et al do not explicitly disclose temperature control of the work surface.

Lauer et al disclose a capillary electrophoresis device in which all components are contained in a temperature-controlled enclosure, including the sample plate. (Figure 1, 93) Furthermore, Lauer et al teach the advantages of maintaining a constant temperature throughout the system in order to maximize reproducibility. (Figure 1; Column 5, lines 21-37)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Briggs et al by performing the method in an apparatus wherein the temperature of the system (including the work surface) is controlled, as taught by Lauer et al, because Lauer teaches that maintaining a constant temperature throughout the system improves reproducibility. (Column 5, lines 21-37)

10. Claims 14-21 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kambara et al in view of Truchaud et al.

The disclosure of Kambara et al is as described above in paragraph 8.

Kambara et al do not explicitly disclose temperature control of the work surface, nor do they explicitly disclose controlling the humidity around the work surface in order to reduce sample evaporation (Claim 18), or cooling the temperature of the work surface. (Claim 19)

Truchaud et al disclose the benefits of temperature and humidity control in clinical analytical laboratories, in reduction of interference by environmental factors. (Page 1712, Advanced technologies section, 3rd paragraph)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Adourian et al by controlling the temperature and humidity of the laboratory (and therefore, the work surface and area surrounding it), as taught by Truchaud et al, because Truchaud et al teach its value in increasing the reliability of results in an analytical laboratory.

Relevant to claim 18, although Truchaud et al do not explicitly discuss reducing sample evaporation, such humidity control would necessarily and obviously include increasing the humidity of the laboratory air when a decrease in humidity is observed, in order to maintain consistent conditions. Any such humidity increase would reduce the rate of sample evaporation, thus meeting this claim limitation.

Relevant to claim 19, the temperature control would inherently involve cooling the air within a laboratory when an increase in temperature is observed, in order to maintain consistent conditions. Any such decrease in temperature would serve to decrease the temperature of the work surface.

11. Claims 14-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Briggs et al in view of Truchaud et al.

The disclosure of Briggs et al is as given above in paragraph 9.

The reasoning for this rejection parallels that given above in paragraph 10.

12. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Adourian et al in view of either Ginsberg et al or Monthony et al.

Adourian et al disclose a method as described above in addressing claim 14.

Adourian et al do not explicitly disclose controlling the humidity around the work surface in order to reduce sample evaporation.

Ginsberg et al disclose a liquid sample analysis system that includes covers (Figure 1, covers 66 and 70) that are disposed over sample and reagent wells, in order

to maintain humidity in the area under the cover and prevent evaporation of the liquids held in the wells. (Column 4, lines 42-46 and 61-62)

Monthony et al disclose a sample distribution element suitable for general use in analytical procedures (Column 6, lines 27-30), which includes a lid that "[forms] a humidity control system for restricting evaporation from the device." (Column 8, lines 13-31)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Adourian et al by controlling the humidity around the work surface to prevent sample evaporation by covering the work surface, as taught by either Ginsberg et al or Monthony et al, because one having ordinary skill in the art would have recognized that solvent evaporation would lead to unreliable results, and would have therefore been motivated to use such known methods of evaporation prevention.

13. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kambara et al and Lauer et al as applied to claim 14 above, and further in view of either Ginsberg et al or Monthony et al.

The disclosure of Kambara et al and Lauer et al is as described above in Paragraph 8.

The reasoning for this rejection parallels that given above in paragraph 12.

14. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Briggs et al and Lauer et al as applied to claim 14 above, and further in view of either Ginsberg et al or Monthony et al.

The disclosure of Briggs et al and Lauer et al is as described above in Paragraph 9.

The reasoning for this rejection parallels that given above in paragraph 12.

15. Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adourian et al in view of Truchaud et al.

Adourian et al disclose a method as described above in addressing claim 14.

Adourian et al do not explicitly disclose controlling the humidity around the work surface in order to reduce sample evaporation, or cooling the temperature of the work surface.

Truchaud et al disclose the benefits of temperature and humidity control in clinical analytical laboratories, in reduction of interference by environmental factors. (Page 1712, Advanced technologies section, 3rd paragraph)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Adourian et al by controlling the temperature and humidity of the laboratory (and therefore, the work surface and area surrounding it), as taught by Truchaud et al, because Truchaud et al teach its value in increasing the reliability of results in an analytical laboratory.

Relevant to claim 18, although Truchaud et al do not explicitly discuss reducing sample evaporation, such humidity control would necessarily and obviously include increasing the humidity of the laboratory air when a decrease in humidity is observed, in order to maintain consistent conditions. Any such humidity increase would reduce the rate of sample evaporation, thus meeting this claim limitation.

Relevant to claim 19, the temperature control would inherently involve cooling the air within a laboratory when an increase in temperature is observed, in order to maintain consistent conditions. Any such decrease in temperature would serve to decrease the temperature of the work surface.

16. Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adourian et al in view of Hansen et al.

Adourian et al disclose a method as described above in addressing claim 14.

Adourian et al do not explicitly disclose controlling the humidity around the work surface in order to reduce sample evaporation (Claim 18), nor do they disclose a temperature controller that cools the work surface. (Claim 19)

Relevant to claim 18, Hansen et al disclose a thermal cycling system that includes a heated cover that is disposed over sample wells that maintains humidity in the area under the cover and reduces evaporation of the liquids held in the wells. (Column 5, lines 20-30)

Relevant to claim 19, Hansen et al discloses active cooling of the microtiter plate (i.e. work surface) during the course of the heating cycles, and teaches the benefits of active cooling. (Column 6, line 49 - Column 7, line 9; Figure 9, Column 12, lines 12-27; Background and Summary sections)

Regarding claim 18, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Adourian et al by controlling the humidity around the work surface to prevent sample evaporation by covering the work surface, as taught by Hansen et al, because one having ordinary skill in the art would have recognized that solvent evaporation would lead to unreliable results, and would have therefore been motivated to use such known methods of evaporation prevention.

Regarding claim 19, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Adourian et al by specifically using a temperature controller with active cooling for the work surface in order to carry out the PCR temperature cycling (i.e. Provisional Appl. 60/058,798, Page 18, lines 1-15), as taught by Hansen et al, because Hansen et al teach that such rapid temperature changes are believed to reduce unwanted side reactions. (Page 12, lines 22-27) In addition, one having ordinary skill in the art would have been motivated to use active cooling, as taught by Hansen et al, because of the desirability of the inherent time savings gained with rapid cycling allowed by their method, compared to non-active cooling.

17. Claims 22, 23, 25, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adourian et al in view of Lewis.

Adourian et al disclose a method as described above in addressing claims 14 and 24.

Relevant to claims 22 and 25, Adourian et al also disclose having more loading wells on their electrophoresis chip than pipette tips used to load them. (Provisional application, Page 7, lines 13-20; particularly lines 19-20 - repetition of the cycle is only necessary if not all wells are loaded in one transfer step)

Relevant to claims 23 and 26, Adourian et al also disclose staggered 500 micron wells on channels with 333 micron spacing (Provisional Application, Page 11, lines 7-14), and teach the advantages in cost savings and throughput gained by maximizing capillary and loading well density. (Page 4, lines 11-21)

Adourian et al do not explicitly address transferring the samples with a device programmed such that one-to-one correspondence between a work surface coordinate and a loading well is not required (Claim 22), nor do they explicitly address decoupling the spatial arrangement of the work surface coordinates from the capillary inlets. (Claim 23)

Relevant to claims 22 and 25, Lewis discloses programmable pipetters with varying numbers of tips (e.g. Four tips are visible in the MultiPROBE system shown at the top of Page 4, Finnpipettes with variable numbers of tips discussed in the first paragraph of Page 3)

Relevant to claims 22, 23, 25, and 26, Lewis discloses variable spacing of pipette tips. (Finnpipettes at Page 3, 1st paragraph; MultiPROBE at Page 3, 9th paragraph)

Regarding claims 22 and 25, Adourian et al recite no requirement that there be a "one-to-one correspondence" between work surface coordinates and loading wells. They disclose the use of a pipetter with eight tips on fixed, 9 mm centers for sample transfer. (Page 8, lines 6-10) It would have been obvious to one having ordinary skill in the art to use arrays of more than eight loading wells (and capillaries) in a row (Suggested at Page 7, lines 13-20), given the benefits in time and labor saved through parallel analysis. In such an array, there would obviously be no requirement for one-to-one correspondence between work surface coordinates and loading wells.

Additionally, Lewis describes pipetters with fewer pipette tips (e.g. four shown in the MultiPROBE system), and it would have been obvious to one having ordinary skill in the art at the time the invention was made to use any such pipetter within the method of Adourian et al, because the suitability of all such pipetters in facilitating fluid transfer is common knowledge within the art. Added motivation to use the MultiPROBE system lies in its variable tip spacing, which one having ordinary skill in the art would have recognized as providing highly desirable flexibility in operation.

One having ordinary skill in the art would have recognized that the use of a four channel pipetter to load an array of eight (or more) wells requires no one-to-one correspondence, and any four consecutive wells could be loaded in any one pipetting step. Additionally, the MultiPROBE system shown by Lewis has variable tip spacing (Page 3, 9th paragraph), which would obviously provide even greater flexibility in

selecting which sample is loaded in which well, and would also in itself meet the limitation that "one-to-one correspondence between a work surface coordinate and a loading well is not required".

Regarding claims 23 and 26, it would also have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Adourian et al by maximizing the density of channels and loading wells on the electrophoresis chip, without considering matching the well spacing to standard microtiter plates, and using a pipetter with variable tip spacing for loading, such as the MicroPROBE described by Lewis, because Adourian et al teach the benefits of maximizing channel density in electrophoresis chips, in increased throughput and cost reduction. (Page 4, lines 11-21) Use of a pipetter with variable tip spacing eliminates any requirement for well spacing in the chip to be coupled to the spacing of a standard microtiter plate, and greater channel and well density (with corresponding increased throughput) would obviously be attainable if the constraint of having the loading wells be spaced at an integral fraction of 9 mm was thus removed.

Response to Arguments

18. Applicant's arguments filed on 2 May 2005 have been fully considered but they are not persuasive.

Applicant argued (Amendment, Page 6) that the cited Figure 8A of Adourian did not appear in Provisional Application 60/058,798, the support of which is required because the instant application and the Adourian patent share the same filing date.

Applicant is correct that this particular figure is absent in the disclosure of the '798 provisional application, but there is abundant support (cited above) within the '798 application for the disputed limitation to "a capillary positioned therein", as well as all other limitations of the independent claims. For clarity, all citations given above in the rejections relying on Adourian et al are given to page and line numbers in the provisional application.

Applicants also argue that Kambara et al do not teach "a capillary positioned therein". (Amendment, Page 7) Citations to Kambara have been clarified above - in Figures 8 and 9 of Kambara et al, channel 20, with gel 50, is clearly illustrated as lying at the bottom of, and therefore, within well 23.

Applicants further dispute the combination of either Kambara et al or Briggs et al with Lauer et al, and also dispute that any such combination would meet the limitations of the instant independent claims, particularly emphasizing the limitation that "the temperature of the work surface is controlled by a temperature controller"..(Amendment, Pages 8-9) In the interview of 21 June 2005, Applicant's representative further emphasized that this temperature control feature of the claimed invention is considered by Applicant to be of particular importance.

As currently recited, the claims in no way restrict the temperature control to be limited to the work surface alone, only requiring that the temperature of the work surface be controlled, and as cited above, Lauer et al teach the benefits in reproducibility to be gained by placing the entire electrophoresis apparatus, including the work surface from which samples are taken (Figure 1, plate 93), in a temperature-controlled enclosure.

(Column 5, lines 21-37) As such, the Examiner maintains that it would have been obvious to one having ordinary skill in the art at the time the invention was made to place either the system of Kambara et al or Briggs et al in such a temperature-controlled enclosure, as argued above. Contrary to Applicant's assertion (Page 8, 1st full paragraph), the improved reproducibility taught by Lauer et al is considered to be a reasonable motivation for these combinations, and the Applicant has failed to provide any substantial arguments to the contrary. Furthermore, the Examiner maintains that this combination meets the limitations of the independent claims as currently recited, since these combinations would provide temperature control to the work surface of either Kambara et al or Briggs et al, as required by the claims.

Therefore, Applicant's arguments do not overcome any of the rejections presented previously, and all are maintained.

Conclusion

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Jeffrey Barton, whose telephone number is (571) 272-1307. The examiner can normally be reached Monday-Friday from 8:30 am – 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen, can be reached at (571) 272-1342. The fax number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at (866) 217-9197 (toll-free).

JTB
June 28, 2005

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